

Title (en)  
INJECTION MOLDING METHOD FOR COMPOSITE MATERIAL COMPOSED MAINLY OF STONE AND APPARATUS THEREOF

Title (de)  
SPRITZGUSSVERFAHREN FÜR EIN HAUPTSÄCHLICH AUS STEIN BESTEHENDES VERBUNDMATERIAL UND VORRICHTUNG DAFÜR

Title (fr)  
PROCÉDÉ DE MOULAGE PAR INJECTION POUR MATÉRIAU COMPOSITE COMPOSÉ PRINCIPALEMENT DE PIERRE ET APPAREIL CORRESPONDANT

Publication  
**EP 2505329 A4 20140101 (EN)**

Application  
**EP 10711128 A 20100128**

Priority  

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- CN 2010000123 W 20100128

Abstract (en)  
[origin: US7959845B1] The invention provides an injection molding method of stone-based composite material and equipment thereof, wherein the method comprises the following steps: a. putting raw materials into a charging device and then pushing the raw materials into a preforming machine barrel of a preforming device by a pressing component in the charging device; b. keeping the temperature being between 15° C. and 55° C. and compacting the raw materials with the rotation of a preforming screw and transporting the raw materials into a collecting block; c. injecting the raw materials into a mold through a mold gate under the injection force of 50 Mpa to 180 Mpa; d. keeping the temperature of the mold between 140° C. and 200° C. and curing time between 40 seconds and 300 seconds; and e. opening the mold to get the product. The invention has the advantages of simple production process, high acceptance rate of products manufactured, high production efficiency and low production cost. The product has the advantages of high mechanical strength, good fire resistance, thermal stability, corrosion resistance and electrical property, low cost and the like. The product is capable of substituting the majority of thermoset plastics and thermoplastics, thus reducing the usage amount of plastic products and providing powerful support and safeguard for creating resource-conservation and environment-friendly industry.

IPC 8 full level  
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CPC (source: EP US)  
**B28B 1/24** (2013.01 - EP US); **B29C 67/243** (2013.01 - EP US); **B29C 45/54** (2013.01 - EP US)

Citation (search report)  

- [A] WO 9900237 A1 19990107 - VICFAM PLASTICS PTY LTD [AU], et al
- [AP] DE 102008051300 B3 20100107 - KRAUSS MAFFEI TECH GMBH [DE]
- [A] US 2006061015 A1 20060323 - INUKAI YUKIO [JP], et al
- See references of WO 2011075924A1

Cited by  
CN104960139A; CN107973988A

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**US 2011156298 A1 20110630; US 7959845 B1 20110614**; AU 2010201884 A1 20110714; AU 2010201884 B2 20120308; BR PI1003110 A2 20120424; CN 201693642 U 20110105; EP 2505329 A1 20121003; EP 2505329 A4 20140101; JP 2012503565 A 20120209; JP 5189682 B2 20130424; KR 101145117 B1 20120514; KR 20110091432 A 20110811; WO 2011075924 A1 20110630

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**US 87660610 A 20100907**; AU 2010201884 A 20100128; BR PI1003110 A 20100824; CN 2010000123 W 20100128; CN 201020227810 U 20100604; EP 10711128 A 20100128; JP 2011546572 A 20100128; KR 20107006796 A 20100128